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Accidental migrations of animals of other landscape zones to the tundra. Trudy Sal. stats. UFAN SSSR no.1:363 '59. (MIRA 14:9)
(Yamal-Nenets National Area--Animal migration)

KOPEIN, K.I.

Some interior characteristics of the greater narrow-skulled vole (Microtus gregalis major Ogn.) and the Ob' lemming. Trudy Ural. otd. MOIP no.2:69-74 '59. (MIRA 14:11)

(Field mice)

(Lemmings)

SHVARTS, S.S.; KOPEIN, K.I.; POKROVSKIY, A.V.

Comparative study of some biological characteristics of the voles Microtus gregalis gregalis Pall., Microtus gregalis major Ogn., and their hybrids. Zool.zhur. 39 no.6:912-926 Je '60. (MIRA 13:7)

1. Laboratory of Zoology, Institute of Biology, Ural Branch of the U.S.S.R. Academy of Sciences, Sverdlovsk.
(Field mice)

KOPEIN, K.I.

Biology of the reproduction of ermine on the Yamal Peninsula. Trudy Inst. biol. UFAN SSSR no.38:33-40 '65. (MIRA 18:12)

KOPEIN, V. I.

20775. Kopein, V. I. Letneye ispol'zovaniye ratsionlizirovannykh doroy. Les. prom-st', 1949, No.6, s.7.

SO: LETOPIS ZHURNAL STATEY - Vol. 28, Moskva, 1949.

KOPEK, G.

HUNG

The spherosiderite of Mecsek Mountain. Gábor Kopek. *Magyar Állami Földtani Intézet Évi Jelentése* 1953, 177-85 (1954)(French summary).—The ore consists of partially oxidized concretions of Fe carbonate. Chem. analyses of 16 samples show Fe contents up to 43.10%, but the Fe content is much lower in most samples. Michael Fleischer

6
P

KOPEK, G.

Results of geological research on iron ore at Zengovarkony, p. 125,
FOLDTANI KOZLONY, BULLETIN OF THE HUNGARIAN GEOLOGICAL SOCIETY,
(Magyar Foldtani Tarsulat) Budapest, Vol. 85, No. 2, Apr./June 1955

SOURCE: East European Accessions List (EEAL) Library of Congress,
Vol. 4, No. 12, December 1955

KOPEK, Gabor; KECSKEMETI, Tibor, dr.

Leveling of the Eocene of Bakony on the basis of great Forminiferae.
Foldt kozl 90 no.4:442-455 O-D '60. (EEAI 10:5)
(Hungary--Geology) (Foraminifera)

KOPEK, Gabor, dr.; KECSKEMETI, Tibor, dr.

Data on the genesis of the Eocene coal deposits in the Bakony Mountains. Foldt kozl 94 no.3:340-348 Jl-S '64.

KOPEK, Gabor, dr., geologus; KECSKEMETI, Tibor, dr., paleontologus

Results to be expected from the Eocene coal prospecting in the Bakony Mountains. Bany lap 97 no.12:828-830 D '64.

1. Hungarian State Institute of Geology, Budapest (for Kopek). 2. Museum of Natural Sciences, Budapest (for Kecskemeti).

KOPEKOV, Ch.

Agricultural evaluation of natural landforms of the deserts of northern Turkmenistan. Izv. AN Turk. SSR. Ser. biol. nauk no.4: 16-20 '63. (MIRA 16:9)

1. Institut pustyn' AN Turkmenskoy SSR.
(Turkmenistan--Deserts) (Turkmenistan--Reclamation of land)

BK

ACCESSION NR: AP4038934 S/0296/64/000/002/0018/0023

AUTHOR: Kopekov, Ch.

TITLE: Dynamics of the vegetation and soil cover in the ancient irrigation grounds of northern Turkmenia

SOURCE: AN TurkmSSR. Izv. Seriya biologicheskikh nauk, no. 2, 1964, 18-23

TOPIC TAGS: river course change, Amu Dar'ya course, Turkmenia, Amu Dar'ya delta, groundwater level, wet soil, dry soil, desert soil, hydrophilic plant, desert plant, ancient irrigation system, northern Turkmenia irrigation, desert soil evaluation, desert irrigation

ABSTRACT: The basic stages of soil changes in the former Amu Dar'ya delta are presented. This river changed its course in the direction of the Aral, completing this change around 1000 B.C. The land thus dried out slowly from south to north. Ancient irrigation systems in this region date back to around 500 B.C. These appeared and disappeared periodically as dry and wet periods alternated and existed until the 19th century. The water was taken mainly from the Daudan, Dar'yaly*k and other Amu Dar'ya tributaries. The change in groundwater conditions was

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ACCESSION NR: AP4038934

reflected in the vegetation which changed from hydrophilic to desert plants, and the soil which changed from alluvial meadow and swamp to tugaic, takyr-desert soil and sand. The plants are enumerated in the order of appearance with the changes: from Phragmites and Populus to Salsosa, Carex, etc. The irrigated parts represented oases in the desert. Three regions are specifically described which could be used for agriculture; these are also mapped. The left bank of the middle and lower Daudan (irrigated from 400 B.C. until invaded by the Mongols), now desert, is of limited value as cattle pasture, but would have great possibilities upon irrigation. The lower Dar'yaly*k, irrigated in parts until the 19th century, may now be used as pasture for small cattle and camels and with irrigation by rotating crops. The center of the interfluvial region, irrigated or inundated for the past 2000 years, now serviceable as pasture, has the greatest agricultural potential upon irrigation. The residual outcrops (20-30 m height) will improve only upon irrigation of the surrounding territory. Orig. art. has: 1 figure.

ASSOCIATION: Institut pusty*n' AN Turkmenskoy SSR (Desert Institute AN Turkmenian SSR)

ACCESSION NR: AP4038934

SUBMITTED: 23Mar63 ENCL: 00

SUB CODE: ES NO REF SOV: 004 OTHER: 000

Card 3/3

COHEN, P.; REIFFSTECK, A.; WORMSER, G.; KEPAK, Frantisek, inz. [translator]; KOPELENTOVA, Marie [translator]

Sensitiveness and promptness of the evaporation method for measurement of radioactivity of waste water. Jaderna energie 4 no.7:193-196 Jl '58.

BERNSHTEYN, L.A.; GORNYY, A.Kh.; POL'SKIY, L.L.; BATRAKOV, I.G.; KOPELETS, V.S.

Using hydro-cyclones for grading cement slurries of plastic raw materials. TSement 28 no.6:12-15 N-D '62. (MIRA 15:12)

1. Yuzhgiprotsement i Belgorodskiy tsementnyy zavod.
(Centrifuges) (Cement)

KOPELEV, A., polkovnik

Combination of measures of persuasion and compulsion in training troops. Komm. Vooruzh. Sil 3 no.1:45-50 Ja '63. (MIRA 16:1)
(Military discipline)

KOPEIETS, V.S., inzh.; [illegible], L.G., inzh.

Recovering the granulated powder behind the suspended gate of the kiln. (MIRA 18:8)
TSement 31 no.2:15-16 Mr-Ap '65.

1. Belgorodskiy tsementnyy zavod.

KOTROVSKIY, M.M.; KOPELEV, D.D.; BRAZHNIKOV, M.A.

Automation of the exhaust section of a sintering plant. Met. i gornorud. prom. no.2:72-73 Mr-Ap '65. (MIRA 18:5)

KOPELEV, F. L.

Metal-Working Machinery

Economical weight of radial drilling machines., Stan. i instr., no. 12, 1951.

Monthly List of Russian Accessions, Library of Congress, March 1952, UNCLASSIFIED.

KOPELEV, F. L.

USSR/Engineering - Machine Tools

Card 1/1

Author : Kopelev, F. L.

Title : Problems on Decreasing the Weight of Gear Wheels

Periodical : Stan. i Instr. Ed. 25 1, 26-28, Jan/1954

Abstract : Methods for decreasing the weight of gear wheels and machine components are discussed and attempts are made to reduce the configuration of components. Calculations of metal strength and permissible tolerances are presented. Tables.

Institution : ....

Submitted : ....

KOPELEV, F.L. [Kopeliev, F.L.]

Machinery-manufacturing plants of China. Nauka i zhyttia 9 no.9: 48-51 S '59. (MIRA 13:1)

1. Glavnyy konstruktor Odesskogo zavoda radial'no-sverlil'nykh stankov.
(China--Machinery industry)
(China--Description and travel)

KOPELEV, C., Eng.

Nebrat, L. E.

Comments on L. E. Nabrat's article "Inspecting powerful transformers without removing the core." Rab. energ. 2 No. 9, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

1. KOPELEV, G. Ya.

2. USSR (600)

4. Transportation - Equipment and supplies

7. Transporting a transformer through a city. Elek. sta. 23 no. 10, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

1. KOPELEV, G. Ya., Eng.; TRET'YAKOV, P. T.

2. USSR (600)

4. Electric Transformers

7. Unloading 80 tons transformers, Elek. sta., 23, No. 11, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

KOPELEV, Leonid Moiseyevich; DUBROVSKIY, Yu.N., red.; SAVCHENKO, Ye.V., tekhn.red.

[International socialist division of labor] Mezhdunarodnoe sotsialisticheskoe razdelenie truda. Moskva, Izd-vo "Znanie," 1960. 46 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser.3, Ekonomika, no.31). (MIRA 13:11)

(Division of labor) (Economic conditions)

ACC NR: AP6036174 SOURCE CODE: UR/0209/66/000/011/0065/0068

AUTHOR: Kopelev, S. (Candidate of technical sciences); Lev, A. (Engineer)

ORG: none

TITLE: Controlling thrust vector during vertical takeoff and landing

SOURCE: Aviatsiya i kosmonavtika, no. 11, 1966, 65-68

TOPIC TAGS: exhaust system, exhaust nozzle, aircraft engine duct, STOL aircraft, VTOL aircraft, aircraft R and D, THRUST VECTOR CONTROL

ABSTRACT: The design principles, flight characteristics, advantages and disadvantages of STOL and VTOL aircraft are discussed. The further development of such aircraft depends on two factors, i.e. the development of small, light, powerful engines, and the development of small-sized exhaust systems having low power losses and with which the line of thrust can be rotated freely. By increasing compressor pressure it is possible to reduce the cross section of the air ducts in the engine, which are used by the aircraft control system. Serious research is being conducted to develop exhaust systems with controlled direction of thrust. Some designs have, in addition to the main exhaust nozzle, two by-pass exhaust nozzles which are used whenever a vertical direction of thrust must be achieved. Other designs utilize a guide ring to rotate the main exhaust nozzle into the most favorable position for various phases of flight, such as takeoff, cruise, and inflight changes. Orig. art. has: 5 figures.

SUB CODE: 01, 21/ SUBM DATE: none

Card 1/1 UDC: none

L 32942-66 EWP(c)/EWP(k)/EWT(m)/EWP(h)/T-2/FSS-2/EWP(w)/EWP(v) IJP(c) EM/WW

ACC NR: AP6021778 SOURCE CODE: UR/0413/66/000/012/0040/0040

INVENTOR: Kopelev, S. Z.; Zemlyanitskiy, A. N.; Ivanov, Ye. S.; Motin, I. I. 34

ORG: none B

TITLE: Reversible turbine.^{23} Class 14, No. 182738

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 12, 1966, 40

TOPIC TAGS: turbine engine system, turbine engine, turbine design, turbine disk

ABSTRACT: The proposed reversible turbine for driving, for example, a marine^{16} propeller shaft, contains disks with rotor blades with forward and reverse motion and piping with throttle valves for axial feeding of the working medium to the guide vanes. To increase efficiency and improve the engine's pickup, the disks with the forward and reverse motion are mounted on a commom shaft and are connected to it by overrunning clutches for automatic reversal, depending on the feeding of the working medium to the forward or reverse-motion guide vanes. [TN]

SUB CODE: 10/ SUBM DATE: 07Oct63/ ATD PRESS: 5027

Card 1/1 UDC: 621.438-581

ACC NR: AP6032185 SOURCE CODE: UR/0096/66/000/010/0056/0060

AUTHOR: Kopelev, S. Z. (Candidate of technical sciences); Gurov, S. V. (Engineer)

ORG: none

TITLE: Investigating the hydraulic resistance of a cooled blade

SOURCE: Teploenergetika, no. 10, 1966, 56-60

TOPIC TAGS: nozzle blade, nozzle blade cooling, hydraulic resistance, ~~air cooled turbine blade,~~ turbine blade, blade cooling, gas turbine

ABSTRACT: The experimental investigation of the throughflow-volume characteristics and the leakage of the cooling air in the passage between the nozzle blades of a gas turbine is described, and the obtained results are discussed. The construction of the blade with an inner deflector is shown on Fig. 1 and the schematic diagram of the test setup, in Fig. 2. The construction of the test setup permitted the air parameters and the flow volume to be varied over large ranges (e.g., Mach number between the blades = 0—1.1; pressure in the inner cavities of blades up to 4 atm). All experiments were divided into two groups: 1) determination of the relationship between the volumes of air supplied through the cooling channels, and of the air leaning through the tip and root gaps, for various Mach numbers in the interbladed passages; and 2) determination of the coefficients of hydraulic resistance for the convex and concave blade portions, for the inlet edge, and for the outlet slots. In the first group of experiments, the variation in M was attained by changing the air

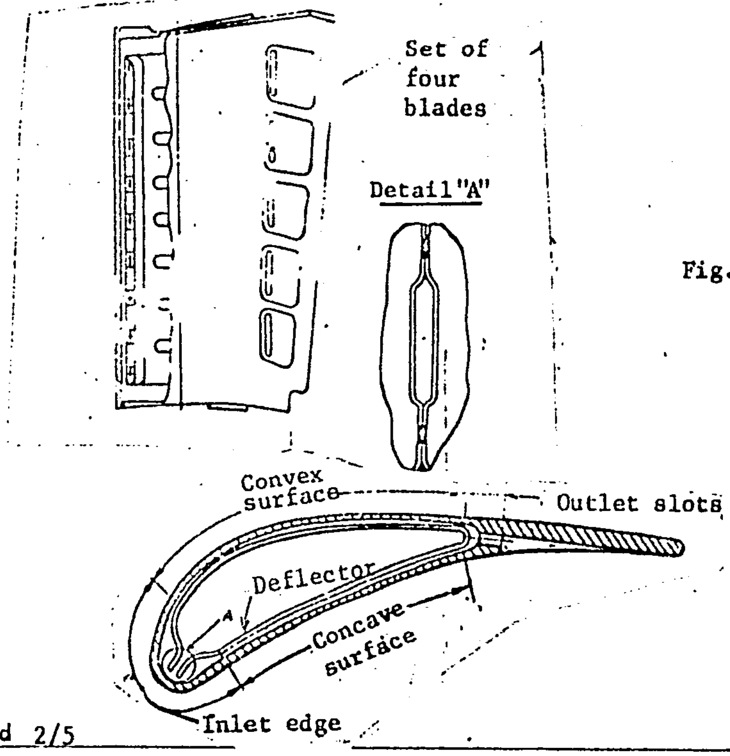

Fig. 1. Nozzle blade

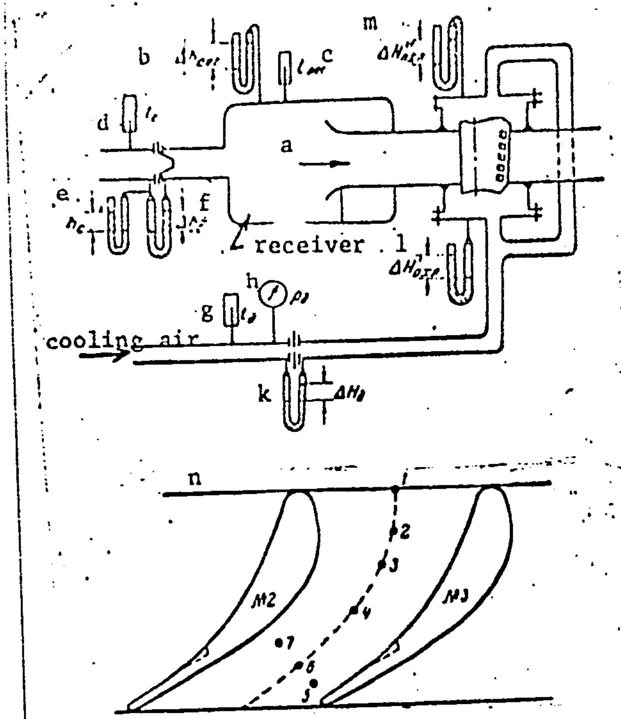

Fig. 2. Test setup

a - Annular-passage flow; b,c - pressure and temperature in the receiver; d,e,f - measuring nozzle: pressure, temperature, and pressure drop; g,h,k - measuring membrane: temperature, pressure, and pressure drop; l,m - pressure in the cooling-air supply chamber; n - velocity-probe arrangement in an interblade passage.

ACC NR: AP6032185

pressure in the receiver. The effect of M on the amount of cooling, air leakage in relation to the total volume supplied, and on the total volume for various pressures in the cooling-air supply chambers is examined. The dependence of through-flow characteristics in the interbladal passages with and without the cooling-air supply, and with open and closed gaps between blades and nozzle-wheel rings are also discussed. The results of all these tests are shown in diagrams. The processing of data obtained in the second group of experiments showed that the magnitude of the hydraulic-resistance coefficient ξ_{sL} of the outlet slot is equal to 0.3 and practically does not depend on the Reynolds numbers in the range Re = (0.5—2.5) x 10^4 which was used in testing. ξ_{cc} along the convex and

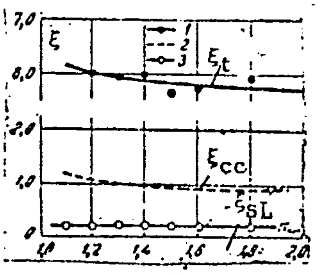

Fig. 3. Hydraulic-resistance coefficient $\xi = f(\pi)$

1 - $\xi_t = f(\pi)$; 2 - $\xi_{cc} = f(\pi)$; 3 - ξ_{sL} = const.

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ACC NR: AP6032185

concave portions, and ξ_{in} at the inlet edge of the blade as well as the total coefficient ξ_t are determined, and the results are shown in Fig. 3 as function of a certain parameter $\bar{\pi}$ accounting for the effect of the velocity increase (pressure drop) in the cooling system. The methods used in determining ξ are explained, their association with the heat exchange is outlined, and the possibility of constructing the thermal characteristics of the turbine blades from the experimental data is examined. It was concluded that the cooling-air supply into the passage of a turbine reduces the gas flow through the annular area, and that the presence of the tip and root gaps causes additional hydraulic losses. Orig. art. has: 7 figures. [WA-76]

SUB CODE: 21/ SUBM DATE: none/ ORIG REF: 005/

SOV/20-126-4-15/62

24(7)

AUTHORS: Vaynshteyn, E. Ye., Bril', M. N., Kopelev, Yu. F.

TITLE: The Fine Structure of the X-ray-K-spectrum of the Absorption of Titanium in the Titanate System $BaO-TiO_2$ and Its Relation to the Properties of the Polarization of Atoms in Seignette-electric Crystals (Tonkaya struktura rentgenovskikh K-spektrov pogloshcheniya titana v titanatakh sistemy $BaO-TiO_2$ i yeye svyaz' s kharakterom polyarizatsii atomov v segnetoelektricheskikh kristallakh)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 4, pp 744 - 747 (USSR)

ABSTRACT: In the present paper investigations of the fine structure of the X-ray absorption spectrum of some compounds of the system $BaO\cdot TiO_2$ are carried out for the purpose of evaluating the symmetry and the magnitude of the internal field in crystals. Investigations are carried out of $BaO.TiO_2$, $BaO.2TiO_2$ and $BaO.4TiO_2$, and the results obtained are given by three diagrams (Figs 1,2,3). An investigation of these results and a

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The Fine Structure of the X-ray-K-spectrum of the Absorption of Titanium in the Titanate System BaO-TiO_2 and Its Relation to the Properties of the Polarization of Atoms in Seignette-electric Crystals SOV/20-126-4-15/62

the crystal, which results in a deterioration of symmetry. The latter is accompanied by a splitting of degenerated levels, which may be determined by means of the group theory. In conclusion, the further application of the group theory is outlined, and the splitting of the levels into multiplets by transitions of the 1s electron is briefly explained. There are 3 figures and 11 references, 8 of which are Soviet.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. I. Vernadskogo Akademii nauk SSSR (Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy of the Academy of Sciences, USSR), Odesskiy pedagogicheskiy institut im. K. D. Ushinskogo (Odessa Pedagogical Institute imeni K. D. Ushinskiy)

PRESENTED: February 27, 1959, by A. P. Vinogradov, Academician

SUBMITTED: February 24, 1959

Card 3/3

24,6820(1153,1160)
9,4300(1043,1155)

23351 S/058/61/000/006/038/063
A001/A101

AUTHORS: Vaynshteyn, E.Ye., Bril', M.N., Kopelev, Yu.F.

TITLE: The use of fine structure of X-ray absorption spectra for determining the internal field in ferroelectrics

PERIODICAL: Referativnyy zhurnal, Fizika, no. 6, 1961, 264, abstract 6E157 ("Nauchn. zap. kafedr matem., fiz. i yestestvozn. Odessk. gos. ped. in-t", 1959, v. 24, no. 1, 29 - 33)

TEXT: The fine structure of Ti X-ray absorption spectrum in ferroelectric $BaTiO_3$ is associated with the high value of internal field and is considered as an analog of Stark splitting. The structure of the electron shell of the Ti^{4+} ion warrants its consideration as hydrogen-like and establishing a correlation between the internal field intensity and the magnitude of splitting of 4p and 5p levels. Experimental values of separations between the components of the split lines permitted the estimate of internal field affecting Ti^{4+}: E_{int} (Ti) = (6 - 8) x 10^5 CGSE. The part of spontaneous polarization caused by displacements of Ti ions was estimated. The magnitude obtained is in satisfactory agreement with estimates made on the basis of electric measurements. This indicates the possibility of

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The use of fine structure ...

23351 S/058/61/000/006/038/063
A001/A101

using the X-ray spectral method for independent investigations of phenomena of spontaneous polarization in crystals. The possibility of using, in principle, the fine structure of X-ray absorption spectra in ferroelectrics for determining the direction of ion displacements under conditions of spontaneous polarization, is pointed out.

V. Lyubimov

[Abstracter's note: Complete translation]

Card 2/2

L 19364-63 EWP(j)/EPF(c)/EWP(q)/EWT(m)/BDS AFFTC/ASD/APGC Pc-4/
Pr-4 RM/WW/WH/MAY

ACCESSION NR: AR3006967 S/0058/63/000/008/D015/D015

27B

SOURCE: RZh. Fizika, Abs. 8D106

AUTHORS: Vaynshteyn, E. Ye.; Kopelev, Yu. F.; Kotlyar, B. I.

TITLE: Investigation of structure of ferrocene and ferricyanium by means of X-ray K-absorption spectra

CITED SOURCE: Nauchn. zap. kafedr. matem., fiz. i yestestvozn. Odessk. gos. ped. in-t, v. 25, no. 2, 1961, 59-64

TOPIC TAGS: ferrocene, ferricyanium, spectral structure, K-absorption, X-ray

6

TRANSLATION: An x-ray spectrograph with quartz crystal (1340 planes) was used to investigate the K absorption edge of iron in $Fe(C_5H_5)_2$ and $Fe(C_5H_5)_2Cl$. The calculation of the absorption edge was carried out under the assumption that the system is hydrogen-like. The in-

Card 1/2

L 19366-63 EWA(h)/EWT(1)/BDS AFFTC/ASD/IJP(C)

ACCESSION NR: AR3006966 S/0058/63/000/008/D015/D015

SOURCE: RZh. Fizika, Abs. 8D104

54

AUTHOR: Kopelev, Yu. F.

TITLE: On a procedure for calculating the fine structure of the K-edge in X-ray absorption spectra

CITED SOURCE: Nauchn. zap. kafedr. matem., fiz. i yestestvozn. Odessk. gos, ped. in-t, v. 25, no. 2, 1961, 68-70

TOPIC TAGS: X-ray absorption spectrum, K edge, fine structure

TRANSLATION: To calculate the shape of the K-absorption edges in the hydrogen-like approximation, limits are established for the effective values of the principal quantum numbers of the ionized 1s-shell, n = 1.73--2.41.

DATE ACQ: 06Sep63 SUB CODE: PH ENCL: 00

Card 1/1

21974

S/020/61/137/005/018/026
B103/B208

5.5310 1273, 1282, 1334

AUTHORS: Vaynshteyn, E.Ye., Kopelev, Yu.F. and Kotlyar, B.I.

TITLE: Some results of X-ray spectrum analysis of ferrocene and its derivatives

PERIODICAL: Doklady Akademii nauk SSSR, v. 137, no. 5, 1961, 1117 - 1120

TEXT: The authors checked some theoretical calculations of the molecular orbits and of the distribution of electron charge in molecules of aromatic complexes. They proceeded from the fine structure of the K-absorption spectra of iron in $Fe(C_5H_5)_2$ and $Fe(C_5H_5)_2Cl$ which have been studied in their laboratory. Their results have been reported on the All-Union Conference on X-ray Spectroscopy in Rostov-na-Donu, June 30, 1959. Table 1 shows the position of the principal maximum of these K-spectra and of some other iron compounds:

Table 1

Compound:	$FeSO_4 \cdot 7H_2O$	$K_4[Fe(CN)_6]$	$K_3[Fe(CN)_6]$	$Fe(NO_3)_3$	$Fe(C_5H_5)_2$	$Fe(C_5H_5)_2Cl$
Energy, ev	0	1.9	3.8	6.8	6.1	6.1

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Fig. 1 shows the corrected spectra of the ferrocene compounds. It may be seen from these curves that the structure of the K-absorption edges of iron is the same in both cases. In the calculation of these edges, the authors assumed the structure of the system to be similar to the hydrogen structure in which an electron knocked loose from the K-shell moves outside of the completed shells of the absorbing atom in gaseous molecules or in crystalline complexes with an approximately central field symmetry. The system of the selective absorption lines and the continuous edge may be calculated in this approximation by means of the following equations: $\varepsilon_n = \varepsilon_\infty \frac{\eta^2}{n^2} Ry$ (1), and $\frac{\tau_n}{\tau_\infty} = \frac{4\eta^2}{\pi\Gamma} \frac{n^2-1}{n^5}$ (2), where ε_n and ε_∞ denote the energy of the transition of the K-electron to one of the np-levels of the system and the boundary of the continuous spectrum, τ_n is the height of the n-th absorption line, τ_∞ is the height of the continuous spectrum, Γ the width of the absorption lines and the boundary of the continuous spectrum, Ry the Rydberg constant, n the effective principal quantum number of the n-energy level, and η the effective charge of the K-ionized absorbing atom in the molecule. The application of relation (2) in the calculation of the K-absorption edge of the metal atom in molecules of the ferrocene-type meets with difficulties. The value τ_n/τ_∞ obtained experimentally is higher than that calculated from (2) with consideration of (1). This divergence can be explained by the effect of the electric field of the molecule on the hydrogen-like system which is formed after ionization of the central atom. Table 2 contains the characteristics of all irreducible representations of group D_{5d}. The odd representations of this group are due to transformation of a six-dimensional base. In this field of symmetry the number of states on which the 1s electron knocked loose during the K-absorption may be captured are thus increased to six, as compared with only 3 p-states of a hydrogen-like system in fields of another symmetry or in the absence of an external field. If the distance between these levels is small, a doubling of the relative intensity of the lines of the selective X-ray absorption of the central atom might be expected, contrary to molecules in whose field the levels are not "multiplied". With increasing degree of ionicity of the binding forces in molecules of the $Me(C_5H_5)_2$ type, and with increasing intensity of the field acting upon

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the central atom, the distance between the energy levels by which the 1s electron is captured in the K-absorption, and the width of the selective absorption bands must increase as well. On the other hand, the intensity of these bands must decrease and may only little deviate from the value calculated by equation (2) for nearly ionic compounds such as $Mn(C_5H_5)_2$. It is assumed on the basis of the available experimental material that in bis-cyclopentadienyl complexes with typical covalent bonds (like ferrocene) the increase of the relative intensity of the selective absorption lines approaches the maximum intensity. In this case, the difficulties in calculating the fine structure of metal spectra may be avoided and also the energy constants of the absorbable atom can be calculated without any hindrances. Figs. 2 and 3 show the calculation of the X-ray K-absorption spectra in $Fe(C_5H_5)_2$ and $Fe(C_5H_5)_2Cl$ molecules. They are in good agreement with the data theoretically calculated. The authors consider the calculation of these values by R.L. Barinskiy (Zhurn.strukturn.khimii, 1, 200 (1960)) to be wrong. The amounts of charges concentrated on the iron atoms were in both complexes about + 0.7, $n = 1.75$, $\Gamma = 11.2$ ev (as compared with the iron spectrum in $K_3Fe(CN)_6(\eta' = \eta - 1 \pm 1;\ n = 1.7,\ \Gamma = 7.5\ ev))$. The authors conclude therefrom that the width of the selective absorption bands changes most in the spectra of ferrocene. It is increased by nearly 50% owing to extension of the transmission end level of the photoelectron in the molecule. As was expected from theoretical calculations, a sufficiently intense band appears in the X-ray spectra of the metal in aromatic complexes which is due to the transition of the 1s electron of the absorbing atom to the group of molecular levels of corresponding symmetry, in addition to a series of bands of the "exciton"-type. The authors express their gratitude to V.V. Voyevodskiy for his interest in the work and for the supply of substances. Mention is made of Ye.M. Shusterovich and M.Ye. Dyatkina. There are 3 figures, 2 tables, and 18 references: 13 Soviet-bloc and 5 non-Soviet-bloc.

ASSOCIATION: Institut neorganicheskoy khimii Sibirskogo otdeleniya Akademii nauk SSSR (Institute of Inorganic Chemistry of the Siberian Department of the Academy of Sciences USSR). Institut geokhimii i analiticheskoy khimii im. V.I.

21974

S/020/61/137/005/018/026
B103/B208

Some results of X-ray spectrum ...

Vernadskogo Akademii nauk SSSR (Institute of Geochemistry and Analytical Chemistry imeni V.I. Vernadskiy of the Academy of Sciences USSR)
Odesskiy pedagogicheskiy institut im. K.D. Ushinskogo (Odessa Pedagogical Institute imeni K.D. Ushinskiy)

PRESENTED: November 16, 1960 by A.P. Vinogradov, Academician

SUBMITTED: November 7, 1960

Fig. 1. Legend: (1) $Fe(C_5H_5)_2$; (2) $Fe(C_5H_5)_2Cl$, abscissa: X-ray quanta, ev; ordinate: absorption

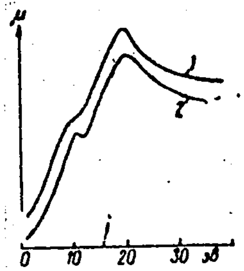

Fig. 1

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KOPELEV, Yu.F.; VAYNSHTEYN, E. Ye.

Comparing the electron structure of bis (benzene) chromium and its cation on the basis of X-ray spectrum studies. Izv. Sib. otd. AN SSSR no.7:98-100 '62 (MIRA 17:8)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR, Novosibirsk.

L 16973-63 EWP(j)/EPF(c)/EWT(m)/ S/020/63/149/006/020/027
EDS ASD Pc-4/Pr-4 RM/WW/MAI

AUTHOR: Vaynshteyn, E. Ye., and Kopelev, Yu. F. 65

TITLE: X-ray spectroscopic study of certain polyferrocenes 64

PERIODICAL: Akademiya nauk SSSR. Doklady. v. 149, no. 6, 1963, 1360-1363

TEXT: In recent years several studies have been published concerning the physicochemical properties of polyferrocenes. These studies considered the opticomegnetic and magnetic characteristics of these compounds and advanced a series of hypotheses on the relationship between these properties and the electron structure of molecules. New information on the electron density distribution in polyferrocene molecules can be obtained by investigating these molecules by the X-ray spectroscopic method. The authors attempted to solve by experiment the question whether the method of investigating the X-ray spectra of iron absorption in polyferrocenes could be used to study the effect of polymerization on the nature of the distribution of charges between the metal and ligands in various polymer molecules. To this end five varieties of polyferrocene were investigated by the X-ray spectroscopic method, upon also using the technique, recently developed by the authors, of processing data for the direct estimate of the η/n^* ratio according to the form of the spectra prior to their separation into components corresponding to successive bands of selective absorption and true boundary. The resulting values of effective charges and other spectrum parameters are tabulated. There are 3 figures and 2 tables.

ASSOCIATION: Institut neorganicheskoy khimii Sibirskogo otdeleniya Akademii nauk

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L 16973-63

S/020/63/149/006/020/027

X-ray spectroscopic study of certain polyferrocenes

SSSR (Institute of Inorganic Chemistry, Siberian Division of the Academy of Sciences USSR)

SUBMITTED: December 10, 1962

Card 2/2

L 27252-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4 RM

ACCESSION NR: AP4047764 S/0289/64/000/002/0003/0009 30

AUTHOR: Kopelev, Yu. F.; Vaynshteyn, E. Ye. 16 B

TITLE: Determination of the effective charges of iron atoms in some polyferrocenes from the xray absorption spectra 7

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya khimicheskikh nauk, no. 2, 1964, 3-9

TOPIC TAGS: ferrocene, polyferrocene, xray absorption spectrum, iron atom, hetero-organic compound

ABSTRACT: A spectrograph with a resolution of about 13500 in the K-series, focused for
reflection from the (1340) place of a quartz crystal with a 500-mm radius of curvature, was
used in a study of the xray K-absorption spectra of iron in (I) a polyferrocene of unidentified
molecular wt., m.p.= 3[illegible]-360C; (II) polybutylferrocene, mol. wt 4450, m.p. 200-240C;
(III) polydibutylferrocene, mol. wt. 3900, m.p. 190-240C; (IV) polyamylferrocene, mol. wt.
7300, m.p. 175-205C; (V) polydiisopropylferrocene, mol. wt. about 8000, m.p. about 200;
ferrocene, $Fe(C_5H_5)2$; and ferricinin, $Fe(C_5H_5)_2Cl$. The absorbents, prepared by briquet-
ting of fine-ground samples, were isolated from the spectrograph chamber by thin cello-
phane films to prevent sublimation in the vacuum, and the photorecorded spectra were

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L 27252-65

ACCESSION NR: AP4047784

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corrected for instrument error by Nikiforov's step method. The characteristics of the electron density distribution were determined both by a method described previously by the authors and by a new technique of estimating the ratio between the effective charge of a K-ionized atom in the molecule and the effective principal quantum number of the level to which the K-electron moves. The technique, based on graphical analysis and requiring no spectrum expansion into components, is described in detail and its results are shown to agree satisfactorily with the results of more complex spectral calculations involving the plotting of selective absorption band series. "S. L. Sosin provided the polyferrocene samples." Orig. art has: 7 figures, 7 formulas and 3 tables.

ASSOCIATION: Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR, Novosibirsk (Inorganic chemistry institute, Siberian branch, AN SSSR)

SUBMITTED: 25Jan63 ENCL: 01 SUB CODE: OC, OP

NO REF SOV: 013 OTHER: 000

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L 27252-65

ACCESSION NR: AP4047784

ENCLOSURE: 01 0

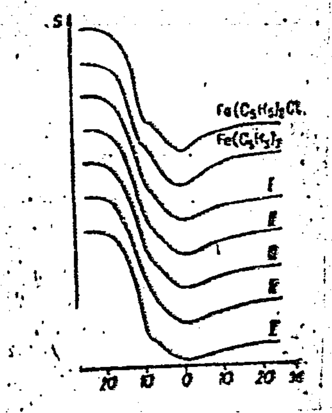

Figure 1. Microphotograms of K-series absorption of iron in ferricinin, ferrocene and 5 polyferrocenes (numbers as given in the abstract).

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KOPELEV, Yu.F.; VAYNSHTEYN, E. Ye.

Determination of the effective charges of iron atoms in some polyferrocenes based on X-ray absorption spectra. Zhur. ob. khim. 34 no.11:3667-3673 N '64 (MIRA 18:1)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR.

KOPELEV, Yu.S.

Winter prospecting by the telluric current method. Razved.i prom.geofiz. no.29:57-59 '59. (MIRA 13:1)
(Siberia, Western--Electric prospecting)

BERDICHEVSKIY, M.N.; KOPELEV, Yu.S.; LANTSOV, A.Ye.

Study of the geology of the northern part of the West Siberian Plain by the magnetotelluric profiling method. Trudy NIIGA 132:133-139 '62. (MIRA 16:4)
(West Siberian Plain--Electromagnetic prospecting)

KOPELEV, Yu.S.

Use of the least squares method in tellurogram processing. Razved. i prom. geofiz. no.48:48-51 '63 (MIRA 18:1)

KOPELEVA, R.L.

USSR / Pharmacology, Toxicology. Chemotherapeutic V
Preparations.

Abs Jour: Ref Zhur-Biol., No 9, 1958, 42472.

Author : Kopeleva, R. L.
Inst : Dnepropetrovsk Medical Institute.
Title : The Effect of Penicillin Injections on the Nerve Elements of Striated Muscles.

Orig Pub: Sb. nauchn. rabot. Dnepropetr. med. in-t, 1956, 1, 43-44.

Abstract: Penicillin (I) was injected in muscles of frogs, mice, guinea pigs and dogs, twice daily, for 5 days. The dogs received, with each injection, 25,000 units, the other animals 2500 units. The animals were killed at intervals of 1, 3, 7 and 15 days after the injections. The experiments demonstrated that the nerve elements of the stri-

Card 1/2

USSR / Pharmacology, Toxicology. Chemotherapeutic V
Preparations.

Abs Jour: Ref Zhur-Biol., No 9, 1958, 42472.

Abstract: ated muscles in mice were more resistant, as far as I was concerned, than those of frogs. Degeneration and destruction of nerve fibres failed to be noted during any of the periods investigated. The reaction affects a large amount of nerve fibres and preterminal fibriles. The nerve endings are swollen only in isolated cases. The dog appears to be entirely resistant to the action of I - only occasional fibres react. Nerve endings remain intact.

Card 2/2

KOPELEVA, R.L.

USSR / Human and Animal Morphology (Normal and S-2
Pathological). The Peripheral Nervous System.

KOPELEVICH, A., inzhener.

Mobile PShS-2 plastering unit. Stroitel' no.3:4-5 Mr '57.
(Plastering) (MIRA 10:4)

KOPELEVICH, A., inzh.; KHACHATRYANTS, I., kand.tekhn.nauk

Small equipment used in large-element construction. Zhil. stroi. no.2:6-8 '63. (MIRA 16:3)

(Building--Equipment and supplies)

Sov/100-58-6-6/11

AUTHOR: Kopelevich, A.M. Engineer.

TITLE: The scope of Mechanization Work in the Otdelstroy Trust.
(Iz opyta raboty mekhanizatoroy tresta Otdelstroy)

PERIODICAL: Mekhanizatsiya Stroitel'stva, 15 No 6, 1958, pp 18-22 (USSR)

ABSTRACT: Trust Otdelstroy No 7 of the Ministry of Building of BSSR was founded in 1953. It was very poorly equiped. Various improvements on building machines and equipment were carried out by the mechanics and these are described and evaluated. Plaster mixer S-250 was reconstructed and became known as S-250-M. Plaster pumping machine S-251-M was provided with a bunker and vibro-sieve (see Figure 2). At the same time the output of plaster pumps was increased to between 1.25 and 2 m^3 per hour either by a change of transmission or an electric motor with a high number of revolutions. The reconstruction of the plaster mixer S-50 is illustrated in Figure 3. The mobile plaster mixing machine PShS-2 (see Figure 4) was constructed on the basis of mixing machine S-250. This mobile mixer is mass produced by the crane factory of the Ministry of Building of BSSR and appears to be more advanced than mixer S-372 the mass production of which began in 1957. Technical

Card 1/2

Sov/100-58-6-6/11

The Scope of Mechanization Work in the Otdelstroy Trust.

data of the mixer PShS-220 was constructed on the basis of the mixer S-220 which had a capacity of 150 litres and also suction pumps S-263 and S-317 (see Figure 5). For the application of plaster (without the use of a compressor) a diaphragm injector-nozzle is used. This is an up-to-date modification of Shaul'skiy's injector-nozzle (see Figure 6a) A universal combined injector-nozzle is illustrated in Figure 6b. For checking suction pipes used for conveying plaster mix and for overhaul after long storage apparatus as illustrated in Figure 7 is used. Pneumatic hammer AM-PB-45 is illustrated for dressing stone facings. This is based on pneumatic hammer type RB-45 and is operated in conjunction with compressor O-16. Figure 9 illustrates a hand operated paint sprayer used for decorating blocks of flats. In 1957 tests were carried out with the mechanised application of primers by means of special equipment S-250-M. Figure 10 illustrates apparatus for cutting tiles. There are ten Figures and two Tables.

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1. Construction--USSR 2. Construction equipment--Design

SOV/100-59-10-5/12

25(5)

AUTHORS: Kopelevich, A.M., and Sagalovich, I.A., Engineers

TITLE: Mechanization of Stucco (Plastering) Work

PERIODICAL: Mekhanizatsiya stroitel'stva, 1959, Nr 10, pp 16-19 (USSR)

ABSTRACT: The article describes various mechanized methods of carrying out stucco work in the building industry, such as by means of the stucco unit PShS-220, turned out by the Minsk Building Finishing Trust and consisting of a mixer S-220 and pumps S-317 and S-263. The mortar is spread over the surface by means of a nozzle with adjustable jet and pneumatic pulverization. This method is applicable in summer and winter, provided the required chemicals are added. The unit can be used for all kinds of complex mortar including different fillers used for decorative purposes. The latest improved units are the PShS-2 and PShS-3 units. In this connection the article mentions a number of new stucco mortars producing various decorative effects. Pumps having a capacity of 2 and 4 cu m/hr have proved themselves most useful in practice. The article describes a new method consisting in applying dry stucco. This method permits the utilization of a mobile 80-l. capacity mixer producing 300 l. of foam-gypsum mixture per hour. What the building

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Mechanization of Stucco (Plastering) Work

SOV/100-59-10-5/12

industry lacks are small light 0.2 to 0.3 kw electric motors for mechanization of various tools required for finishing works. Great difficulties are still encountered in the vertical transportation of material required for finishing jobs, of which 40% are still being performed with material moved by hand. The article describes the existing single pole lifts T-41 and the mast lifts T-37. Another method of vertical transportation is by means of a crane placed in the opening of a window. Pending the construction of more efficient and practical means of vertical transportation, the single pole lifts T-41 should be continued to be used.
There are 4 photos.

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SAGALOVICH, Iosif Aronovich, inzh.; LIBO, Vul'f Ziselevich, inzh.;
KOPELEVICH, Aron Markovich, inzh.; ETIN, Gennadiy Yefimovich,
inzh.; TERESHCHENKO, V., red.; KALECHITS, G., tekhn.red.

[Technological innovations in finishing operations] Novoe v tekhnologii otdelochnykh rabot. Minsk, Gos.izd-vo BSSR, Red. proizvodstvennoi lit-ry, 1960. 51 p. (MIRA 14:3)

1. Trest "Otdelstroy" No.7 Ministerstva stroitel'stva BSSR (for Sagalovich, Libo, Kopelevich, Etin).
(Building--Technological innovations)

KOPELEVICH, Aron Markovich; SLEPTSOVA, Ye., red.

[Making use of small-scale mechanization in construction]
Ispol'zovanie sredstv maloi mekhanizatsii v stroitel'stve.
Minsk, Belarus', 1964. 69 p. (MIRA 18:6)

KOPELEVICH, E.A., avtor konstruktsii; SHULESHKO, I.S., inzhener; **YERMOLOV**, G.A., kandidat tekhnicheskikh nauk; BELOUSOVA, S.M., inzhener.

Small ChMM-450 carding machine. Tekst. prom. 17 no.7:22-29 Jl '57. (MIRA 10:9)

1. TSentral'naya nauchno-issledovatel'skaya laboratoriya (for Shuleshko).

(Carding machines)

ZOLOTAREV, Nikolay Il'ich; YERMILOV, Grigoriy Andreyevich; ASTASHEV, A.G., retsenzent; KOPELEVICH, E.A., retsenzent; ISLANKINA, T.F., red.; MEDVEDEV, L.Ya., tekhn.red.

[Machinery for combing cotton] Chesal'nye mashiny dlia khlopka. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po legkoi promyshl., 1959. 147 p. (MIRA 13:3)

(Cotton machinery)

POPOV, B.D., inzh.; ~~KOPELEVICH, O.L.~~, inzh.

The DSK-1 (housing-construction combine) is building. Biul. tekh. inform. po stroi. 5 no.7:7-11 Jl '59. (MIRA 12:10)
(Leningrad--Precast concrete construction)

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A comparison of the absorption abilities of coal-tar oil and petroleum-gas oil. G. V. Kopelevich. *Khim. Tverdogo Topliva* 2, No. 7, 24-30(1931). The gas oil used in the absorption expts. had a sp. gr. of 0.881, initial b. p. 235°, 2% over at 270°, 4.6 at 280°, 8.8 at 290°, 15.4 at 300°, 28.2 at 310°, 36 at 320°, 46 at 330°, 57 at 340°, 64.5 at 350° and 76.8% at 360°. Its mol. wt. was 252.2, vapor tension 5.7. One of the coal-tar absorption oils had a sp. gr. of 1.042, viscosity E_{20} 1.3, mol. wt. 140.7, initial b. p. 230°, 25 over at 240°, 38 at 250°, 55 at 260°, 68 at 270°, 77 at 280°, 83 at 290° and 89% at 300°. It contained 3% naphthalene and no phenol-cresols. Its vapor tension was 14.0. In the detn. of the vapor tension of C_6H_6, used in various proportions in the above solvents, it was found that the Henry-Dalton law is in disagreement with the practical results. The absorption ability is detd. by the increased vapor tension of C_6H_6 in gas oil as compared with that in the coal-tar oil, with identical temps. A. A. B.

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1ST AND 2ND ORDERS

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3RD AND 4TH ORDERS

Separation of benzene hydrocarbons from coke-oven gas by absorption. G. V. Kopelevich. *Coke and Chem.* (U. S. S. R.) 1932, No. 2, [illegible]-6.—A theoretical scheme for recovery of benzene hydrocarbons from coke-oven gas by absorption in oil. The process consists of the absorption of C_6H_6, C_7H_8, C_8H_{10}, C_9H_{12} in oil circulating in absorption towers and the distg. out of each of the hydrocarbons separately by raising the temp. of the oil and circulating it in a distn. column. James Sorrel

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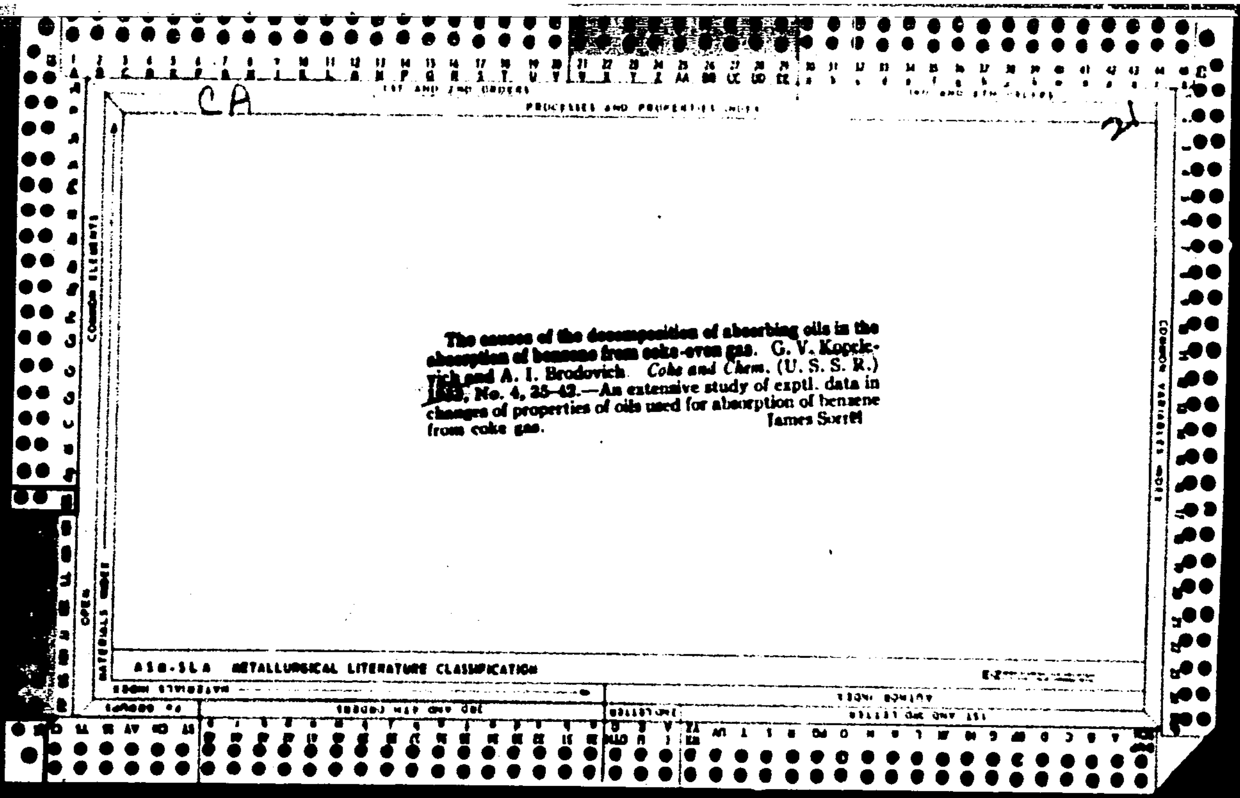
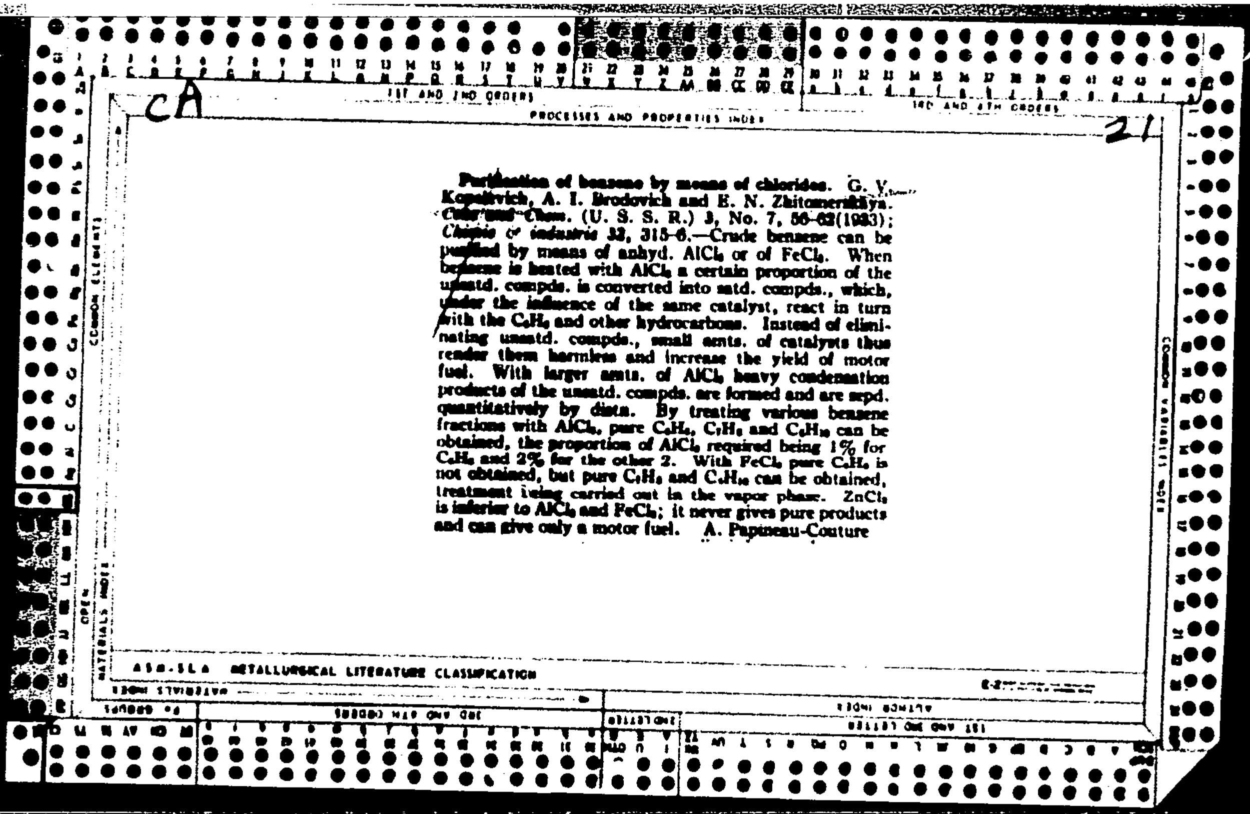


CA

2

The causes of the decomposition of absorbing oils in the absorption of benzene from coke-oven gas. G. V. Kopelevich and A. I. Brodovich. *Coke and Chem.* (U. S. S. R.) [illegible], No. 4, 25-42.—An extensive study of exptl. data in changes of properties of oils used for absorption of benzene from coke gas.
James Sorrel

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION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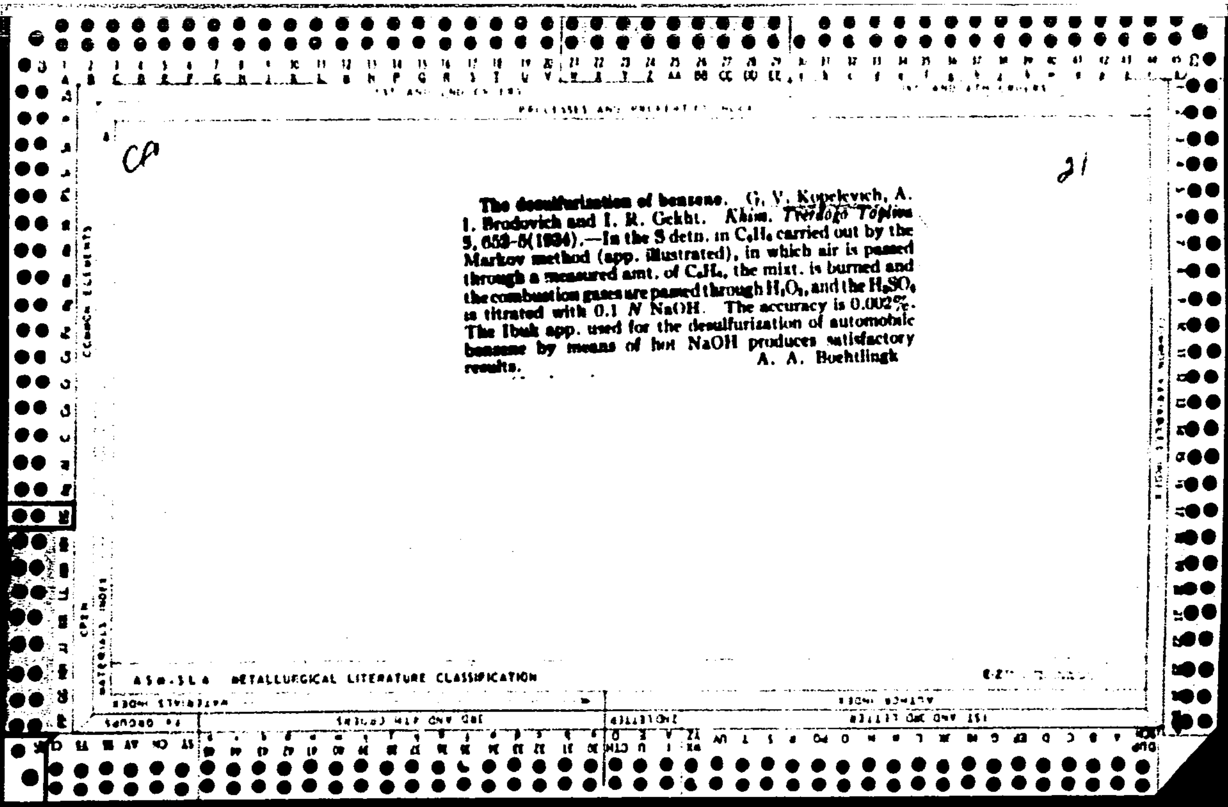
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

Purification of benzene by means of chlorides. G. V. Kopelevich, A. I. Brodovich and E. N. Zhitomerskaya. *Coke and Chem.* (U. S. S. R.) 3, No. 7, 56-62(1933); *Chimie & industrie* 32, 315-6.—Crude benzene can be purified by means of anhyd. $AlCl_3$ or of $FeCl_3$. When benzene is heated with $AlCl_3$ a certain proportion of the unsatd. compds. is converted into satd. compds., which, under the influence of the same catalyst, react in turn with the C_6H_6 and other hydrocarbons. Instead of eliminating unsatd. compds., small amts. of catalysts thus render them harmless and increase the yield of motor fuel. With larger amts. of $AlCl_3$ heavy condensation products of the unsatd. compds. are formed and are sepd. quantitatively by distn. By treating various benzene fractions with $AlCl_3$, pure C_6H_6, C_7H_8 and C_8H_{10} can be obtained, the proportion of $AlCl_3$ required being 1% for C_6H_6 and 2% for the other 2. With $FeCl_3$ pure C_6H_6 is not obtained, but pure C_7H_8 and C_8H_{10} can be obtained, treatment being carried out in the vapor phase. $ZnCl_2$ is inferior to $AlCl_3$ and $FeCl_3$; it never gives pure products and can give only a motor fuel. A. Papineau-Couture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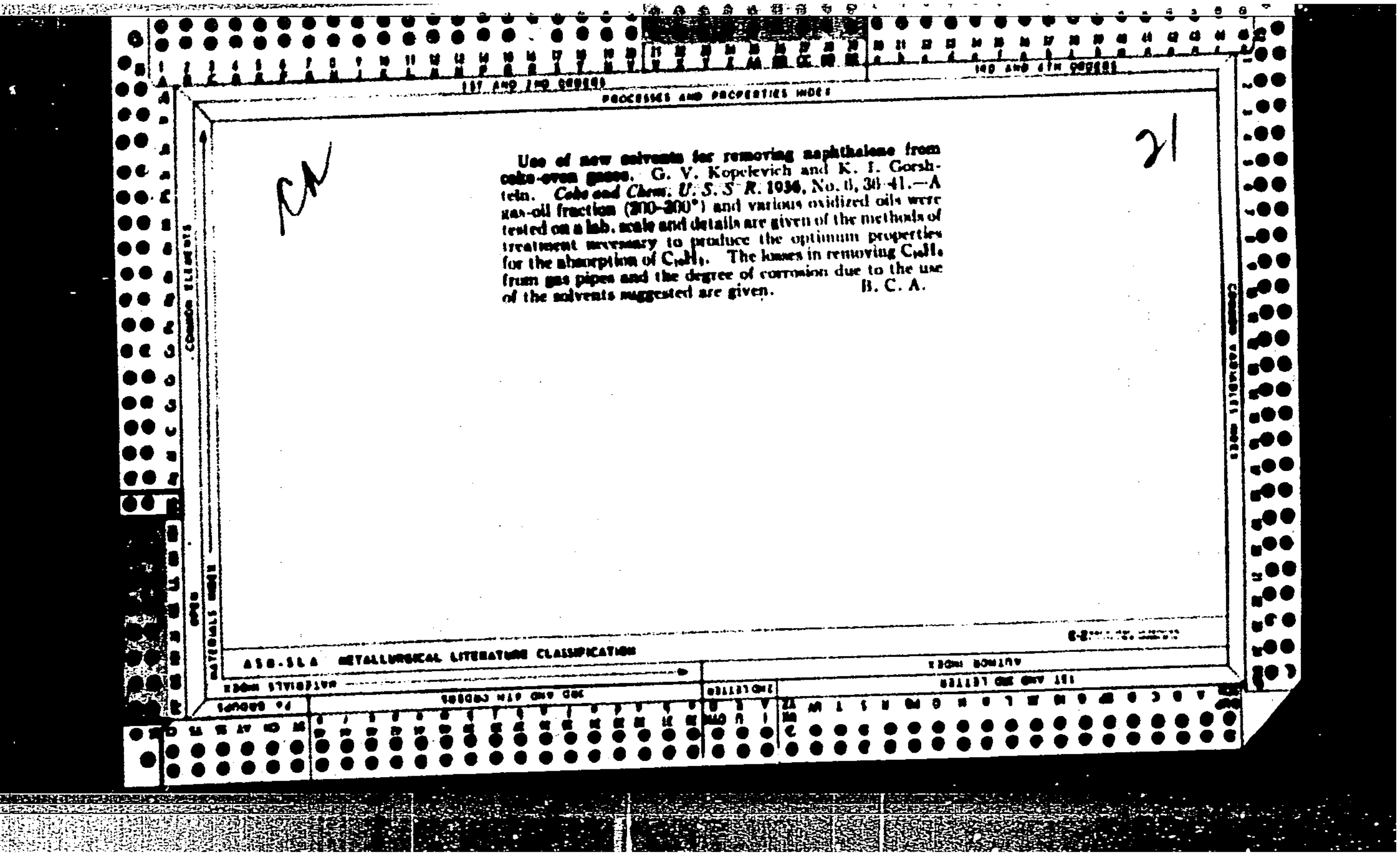
CP

21

The desulfurization of benzene. G. V. Kopelevich, A. I. Brodovich and I. R. Gekht. *Khim. Tverdogo Topliva* 5, 653-6(1934).—In the S detn. in C_6H_6 carried out by the Markov method (app. illustrated), in which air is passed through a measured amt. of C_6H_6, the mixt. is burned and the combustion gases are passed through H_2O_2, and the H_2SO_4 is titrated with 0.1 *N* NaOH. The accuracy is 0.002%. The Ibuk app. used for the desulfurization of automobile benzene by means of hot NaOH produces satisfactory results.

A. A. Boehtlingk



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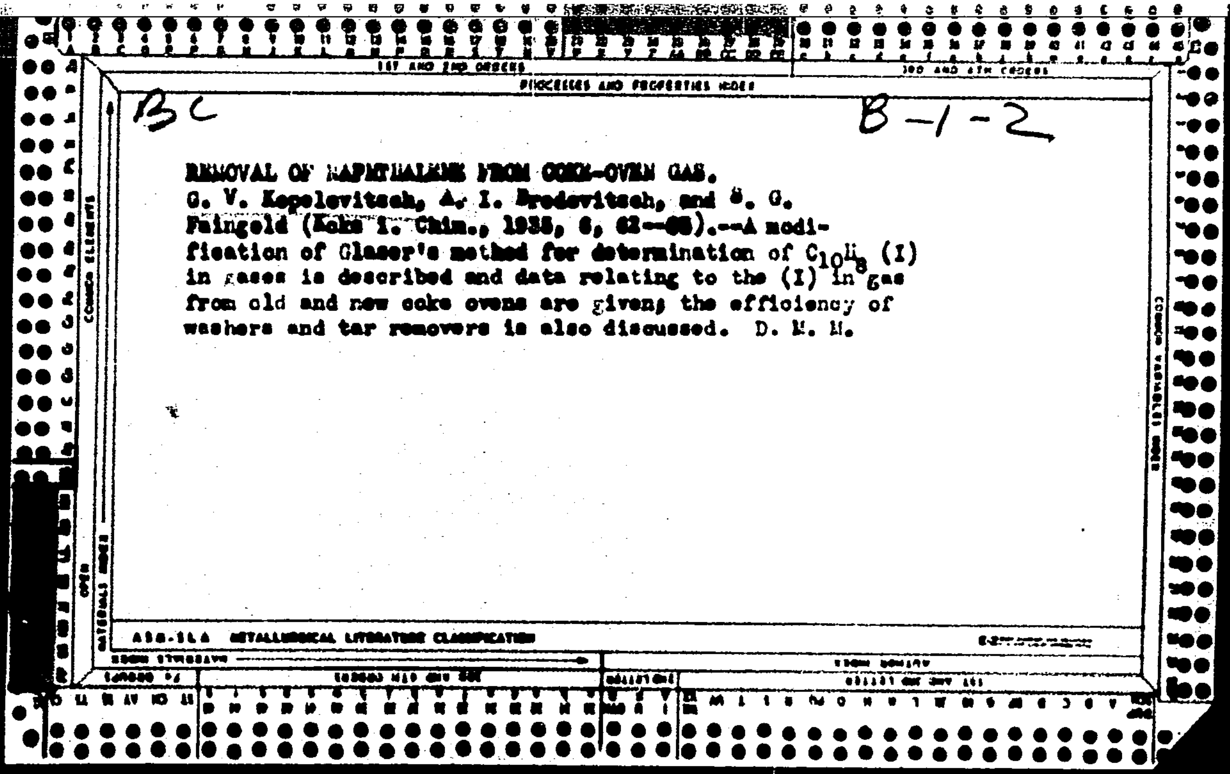
1ST AND 2ND LETTER

CN

21

Use of new solvents for removing naphthalene from coke-oven gases. G. V. Kopelevich and K. I. Gorshtein. *Coke and Chem. U. S. S. R.* 1936, No. 8, 38-41.—A gas-oil fraction (200-300°) and various oxidized oils were tested on a lab. scale and details are given of the methods of treatment necessary to produce the optimum properties for the absorption of $C_{10}H_8$. The losses in removing $C_{10}H_8$ from gas pipes and the degree of corrosion due to the use of the solvents suggested are given. B. C. A.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BC

B-1-2

REMOVAL OF NAPHTHALENE FROM COKE-OVEN GAS.
G. V. Kopelevitsch, A. I. Brodovitsch, and [illegible]. G. Faingold (Koks i. Chim., 1935, 6, 62--65).--A modification of Glaser's method for determination of $C_{10}H_8$ (I) in gases is described and data relating to the (I) in gas from old and new coke ovens are given; the efficiency of washers and tar removers is also discussed. D. M. M.

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B-I-3

Recovery of thiophene-free benzol. G. V. Kotelevich, A. I. Bronovitsch, and I. R. Hecht (Koks i Khim., 1935, No. 7, 19–[illegible]).—Benzol is washed twice with H_2SO_4 in presence of light oil containing cyclopentadiene. J. W.

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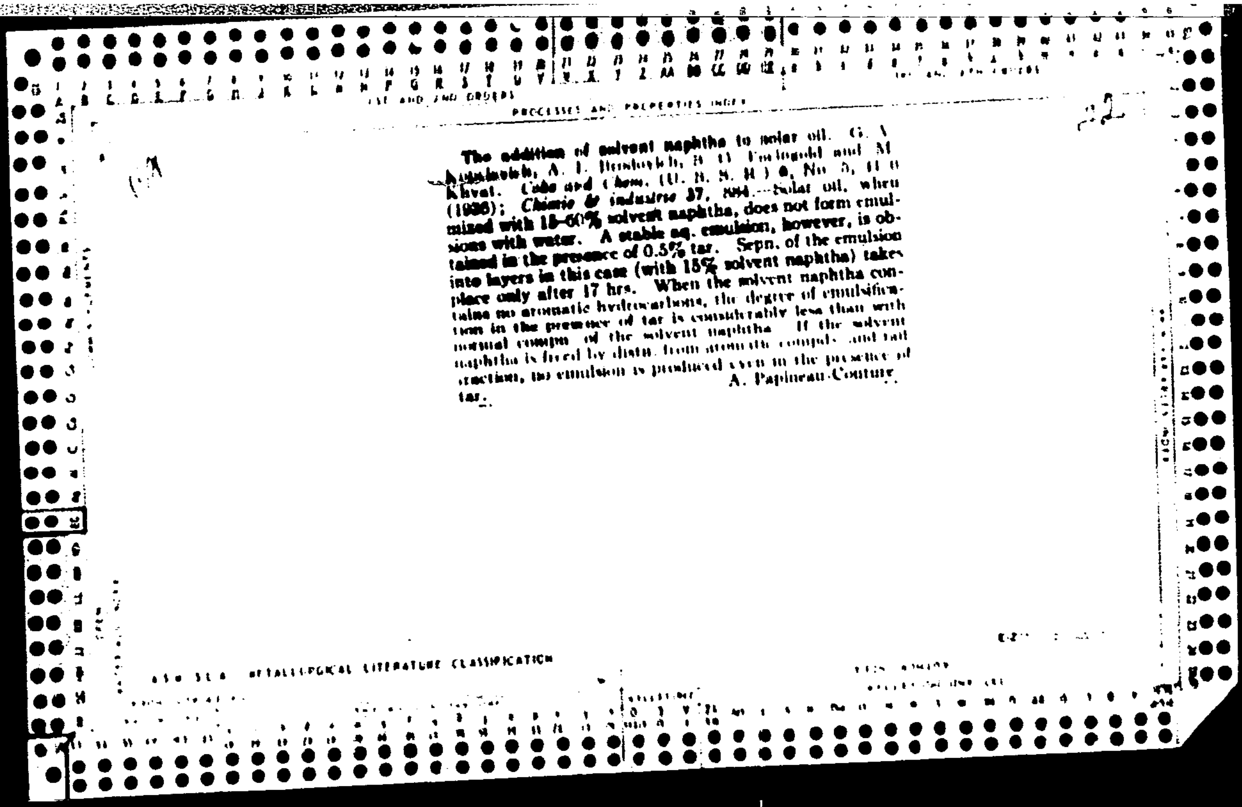

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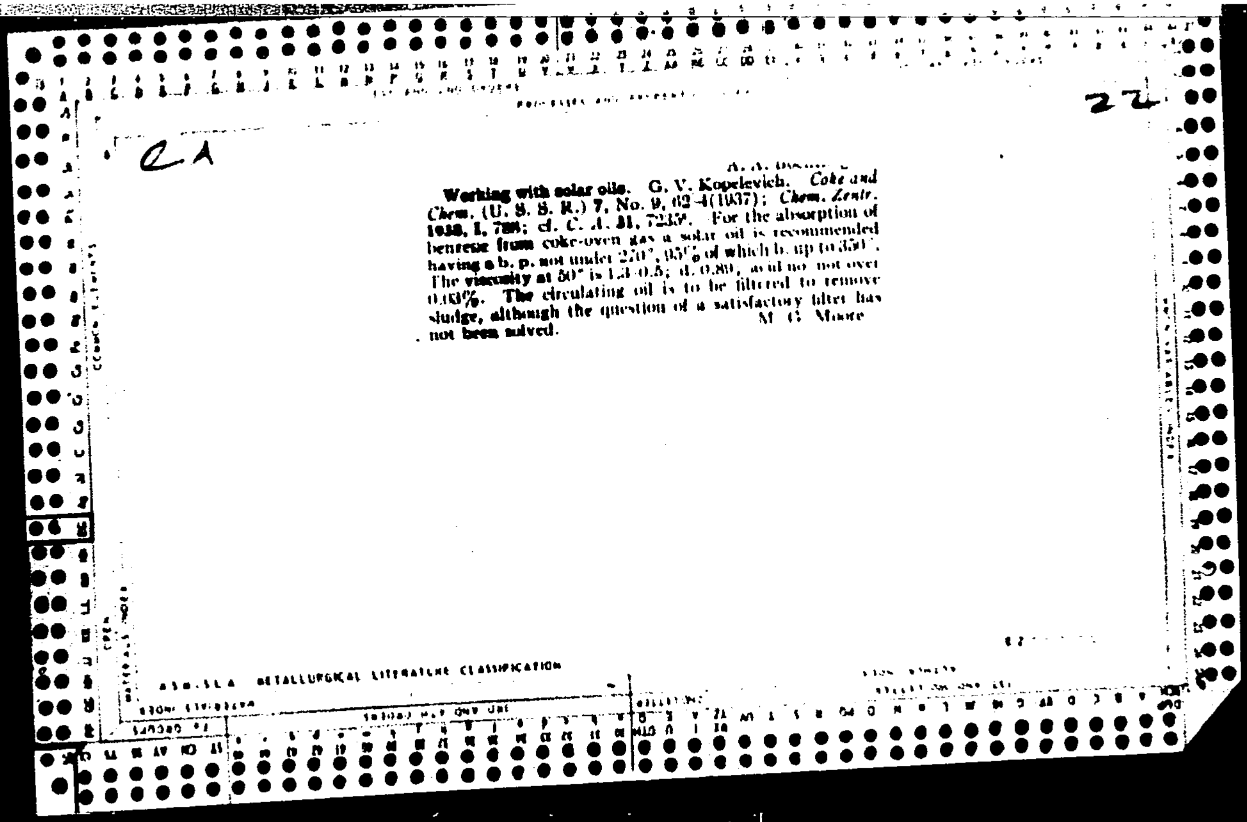
The addition of solvent naphtha to solar oil. G. A. Kunakovich, A. I. Bondukh, B. D. Freilandt and M. Khval. *Coke and Chem.* (U. S. S. R.) 6, No. 5, [illegible] (1936); *Chimie & industrie* 37, 894.—Solar oil, when mixed with 15-60% solvent naphtha, does not form emulsions with water. A stable aq. emulsion, however, is obtained in the presence of 0.5% tar. Sepn. of the emulsion into layers in this case (with 15% solvent naphtha) takes place only after 17 hrs. When the solvent naphtha contains no aromatic hydrocarbons, the degree of emulsification in the presence of tar is considerably less than with normal compn. of the solvent naphtha. If the solvent naphtha is freed by distn. from aromatic compds. and tar fraction, no emulsion is produced even in the presence of tar. A. Papineau-Couture

METALLURGICAL LITERATURE CLASSIFICATION



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Working with solar oils. G. V. Kopelevich. *Coke and Chem.* (U. S. S. R.) 7, No. 9, 62-4(1937); *Chem. Zentr.* 1938, I, 788; cf. C. A. 31, 7237. For the absorption of benzene from coke-oven gas a solar oil is recommended having a b. p. not under 270°, 95% of which b. up to 350°. The viscosity at 50° is 1.3-0.5; d. 0.89, acid no. not over 0.03%. The circulating oil is to be filtered to remove sludge, although the question of a satisfactory filter has not been solved. M. G. Moore

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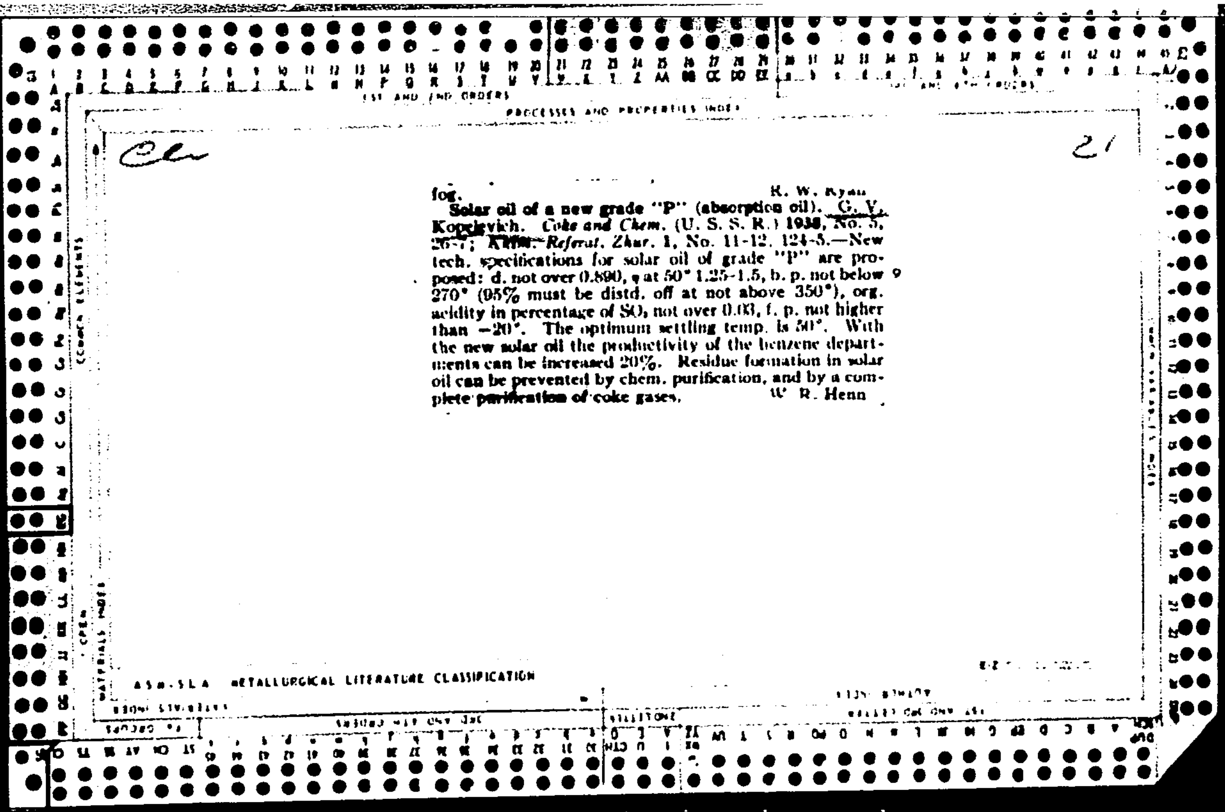
Cleaning coke-oven gas of naphthalene. G. Y. Kruckevich and A. I. Brodkevich. *Coke and Chem.* (U. S. S. R.) 1936, No. 9, 58-61; cf. C. A. 30, 8805^4. A discussion.
A. Pestoff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION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Ch

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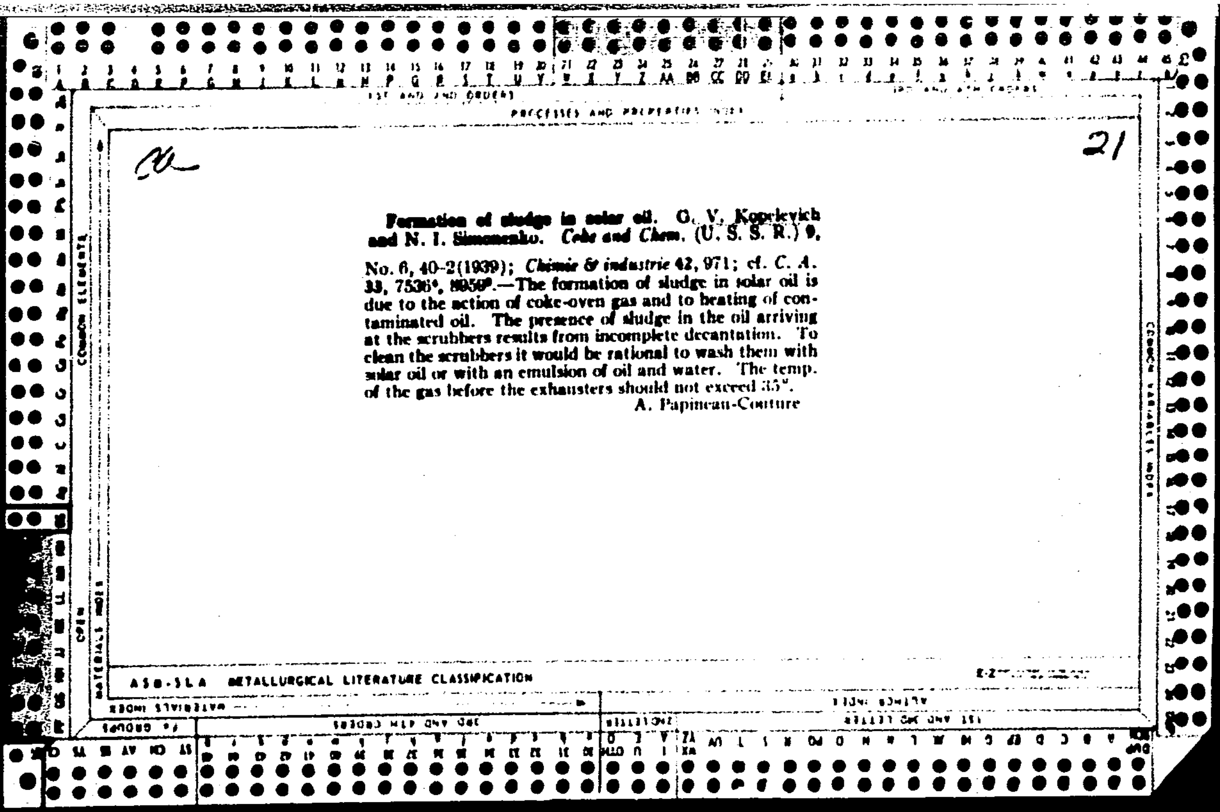
fog. R. W. Ryan

Solar oil of a new grade "P" (absorption oil). G. V. Kopelevich. *Coke and Chem.* (U. S. S. R.) 1938, No. 5, 26-7; ~~Khim.~~ *Referat. Zhur.* 1, No. 11-12, 124-5.—New tech. specifications for solar oil of grade "P" are proposed: d. not over 0.890, η at 50° 1.25-1.5, b. p. not below 270° (95% must be distd. off at not above 350°), org. acidity in percentage of SO_3 not over 0.03, f. p. not higher than −20°. The optimum settling temp. is 50°. With the new solar oil the productivity of the benzene departments can be increased 20%. Residue formation in solar oil can be prevented by chem. purification, and by a complete purification of coke gases. W. R. Henn 9



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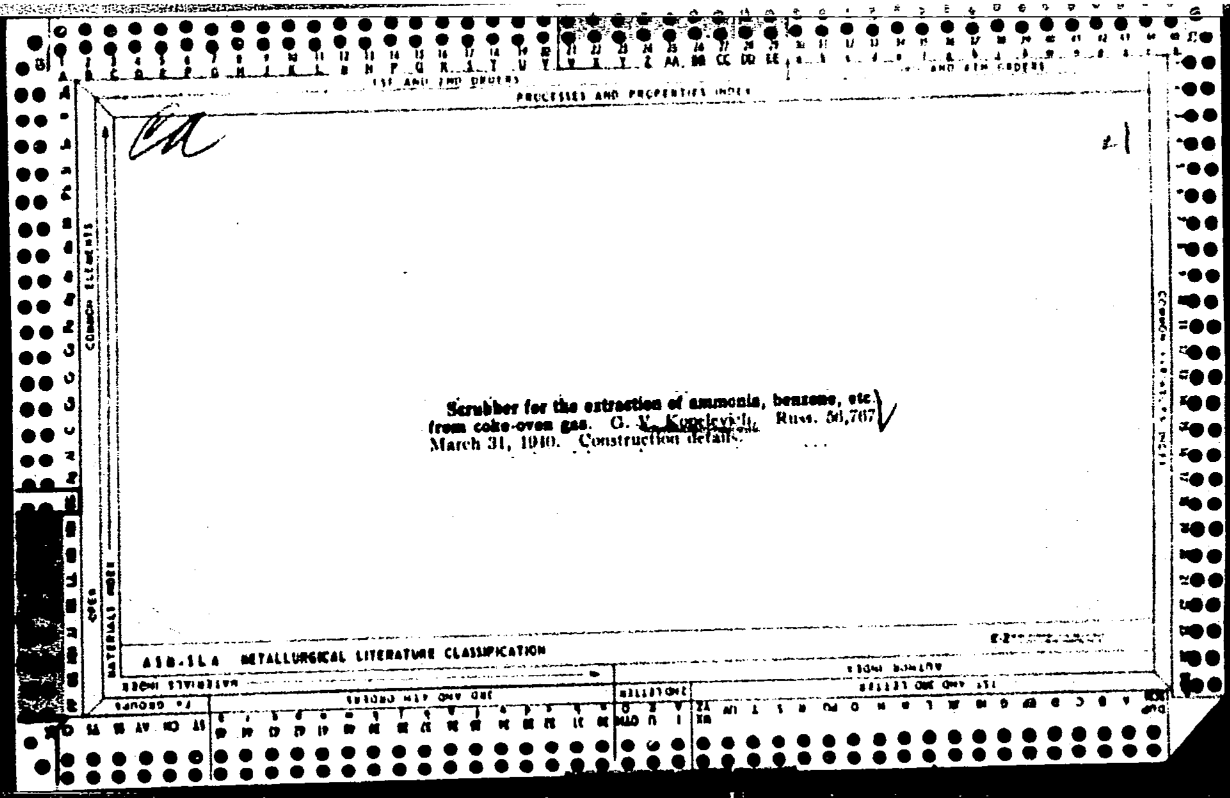
Formation of sludge in solar oil. O. V. Koperkevich and N. I. Simonenko. *Coke and Chem.* (U. S. S. R.) 9, No. 6, 40-2(1939); *Chimie & industrie* 42, 971; cf. *C. A.* 33, 7536^{6}, 8959^{9}.—The formation of sludge in solar oil is due to the action of coke-oven gas and to heating of contaminated oil. The presence of sludge in the oil arriving at the scrubbers results from incomplete decantation. To clean the scrubbers it would be rational to wash them with solar oil or with an emulsion of oil and water. The temp. of the gas before the exhausters should not exceed 35°.

A. Papineau-Couture

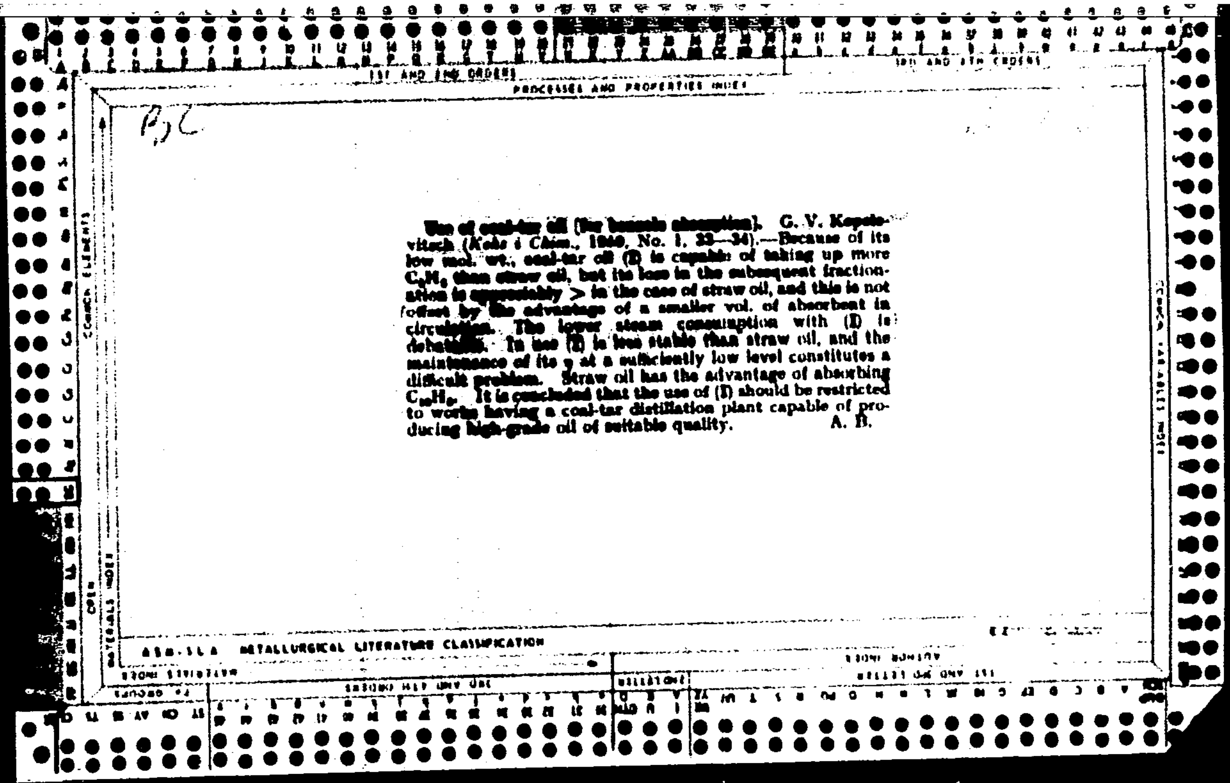
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

Scrubber for the extraction of ammonia, benzene, etc. from coke-oven gas. G. V. Kopelevich. Russ. 56,767 March 31, 1940. Construction details.

1ST AND 2ND ORDERS
PROCESSES AND PROPERTIES INDEX
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION
MATERIALS INDEX


1ST AND 2ND ORDERS
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ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

B,C

Use of coal-tar oil [for benzole absorption]. G. V. Kopelevitsch (Koks i Chim., 1940, No. 1, 33—34).—Because of its low mol. wt., coal-tar oil (I) is capable of taking up more C_6H_6 than straw oil, but its loss in the subsequent fractionation is appreciably > in the case of straw oil, and this is not offset by the advantage of a smaller vol. of absorbent in circulation. The lower steam consumption with (I) is debatable. In use (I) is less stable than straw oil, and the maintenance of its η at a sufficiently low level constitutes a difficult problem. Straw oil has the advantage of absorbing $C_{10}H_8$. It is concluded that the use of (I) should be restricted to works having a coal-tar distillation plant capable of producing high-grade oil of suitable quality. A. B.

KOPELEVICH, G. V.

27158. KOPELEVICH, G. V., FINDEL', M. YA. Metod opredeleniya potentsial'nykh i fakticheskikh smol v poglotitel'nykh maslakh dlya ulavlivaniya syrogo benzola. Zavodskaya laboratoriya, 1949, No. 8, s. 1007-08.

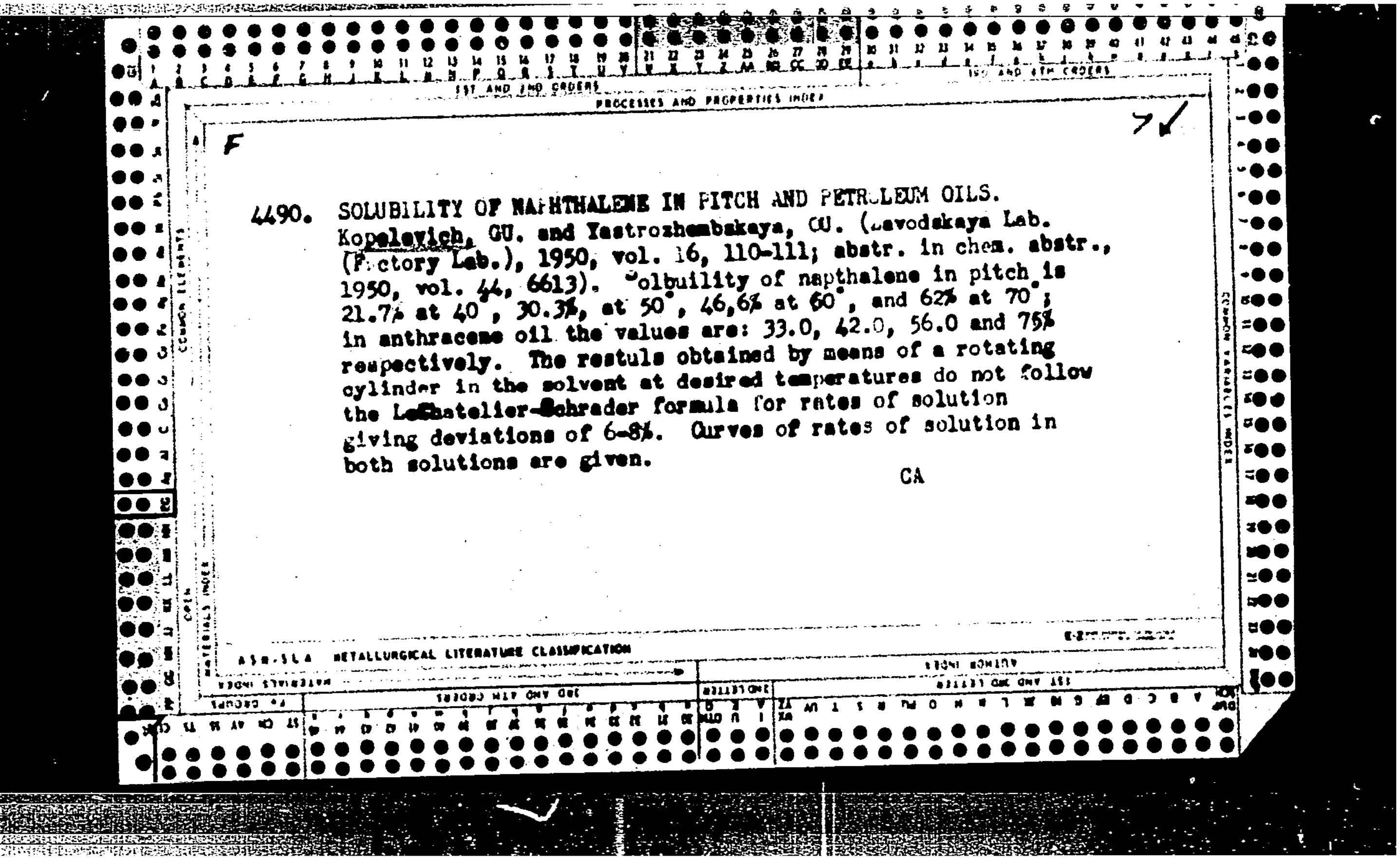
So: Letopis' Zhurnal'nykh Statey, Vol. 36, 1949.

Brit. Abs

BI-3, Petroleum

Approximate method for determination of vapour pressure of technical oils. G. V. [illegible] and M. V. [illegible] (*Zavod. Lab.*, 1949, 15, 479—480; *J. [illegible]*, 1949, [illegible], 280).—The change in wt. when a known vol. of air is passed through a sample of the oil at a suitable temp. is measured.

R. B. CLARKE.



1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

F

7✓

4490. SOLUBILITY OF NAPHTHALENE IN PITCH AND PETROLEUM OILS. Kopelevich, GU. and Yastrozhembskaya, CU. (Zavodskaya Lab. (Factory Lab.), 1950, vol. 16, 110-111; abstr. in chem. abstr., 1950, vol. 44, 6613). Solbuility of napthalene in pitch is 21.7% at 40°, 30.3%, at 50°, 46,6% at 60°, and 62% at 70°; in anthracene oil the values are: 33.0, 42.0, 56.0 and 75% respectively. The restuls obtained by means of a rotating cylinder in the solvent at desired temperatures do not follow the LeChatelier-Schrader formula for rates of solution giving deviations of 6-8%. Curves of rates of solution in both solutions are given.

CA

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

F

G

3837. DETERMINING OPTIMUM TEMPERATURE FOR COLLECTING CRUDE BENZENE IN SOLAR OIL. Kopelovich, G.V. (Zh. Priklad. Khim. (J. Appl. Chem.), Apr. 1950, vol. 23, 461-465; abstr. in U.O.P. Libr. Bull. Abstr., 1 Aug. 1951, vol. 26, 124). Experimental data have been obtained on the change in the viscosity of the absorbent oil with temperature and on the effect of viscosity on the coefficient of the collection of benzene by the absorbent oil.

KOPELEVICH, G.V.

2416. PROSPECTS OF UTILIZATION OF PHENOL FROM THE FRACTION PRODUCED IN THE STEAMING OF PITCH IN THE STEAMING [illegible] K[illegible] Bilyk, L.M. (Koks i Khim. [illegible] In Chem. Abstr. 1956, vol. 50, [illegible] fraction of the steamer column distillate is very difficult. [illegible] extraction with 15% caustic soda, nor settling are effective. A mixture of this fraction with a heavy oil fraction previous to the phenol extraction [illegible] to be more promising, and the operations were studied on an industrial scale. The phenolates obtained from the mixture lend themselves to concentration prior to shipment, or may be used for dilution of concentrated phenolate solutions. The phenol-free fraction obtained can be used for treating railroad ties. (L). C.A.

Kadiyevsk koksokhim Zavod

KOPELEVICH, G.V., kandidat teknicheskikh nauk.

Increasing the yield of naphthalene during the crystallization of the naphthalene fraction. Koks i khim.no.6:49-50 '56.(MLRA 9:10)
(Naphtalene) (Chrystallization)

2416. PROSPECTS OF UTILIZATION OF PHENOL FROM THE FRACTION PRODUCED IN THE STEAMING OF PITCH IN THE STEAMING [illegible]

[illegible] (Koks i [illegible]

[illegible]

[illegible] caustic soda, for [illegible] a heavy oil fraction previous to the phenol extraction [illegible] were promising, and the operations were studied on an industrial [illegible]. The phenolates obtained from the mixture lend themselves to concentration [illegible] shipment, or may be used for dilution of concentrated phenol to solutions. The phenol-free fraction obtained can be used for treating railroad ties. (L).

C.A.

KOPELEVICH, G.V.

Recovery of phenols from tar water by the steam method. Koks i khim. no.2:45-47 '61. (MIRA 14:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut organizatsii proizvodstva i truda chernoy metallurgii.
(Phenols) (Coal tar)

KOPELIOVICH, I.

Production of new trusses is under way. Na stroi. Ros. no.5:24
My '61. (MIRA 14:7)

1. Glavnyy inzhener stroytresta No. 46 Altayskogo sovnarkhoza.
(Trusses)

PALATNIK, Lev Samoylovich; LANDAU, Aleksandr Isaakovich; KOPELIOVICH, I.M., kand.fiz.-matem.nauk, otv.red.; VAYNBERG, D.A., red.; BELOKON', V.V., tekhn.red.

[Phase equilibrium in multicomponent systems] Fazovye ravnovesiia v mnogokomponentnykh sistemakh. Khar'kov, Izd-vo Khar'kovskogo gos.univ. im. A.M.Gor'kogo, 1961. 405 p. (MIRA 15:5)
(Phase rule and equilibrium)
(Thermodynamics)

KoPeLEVICH, Kh. I.

18.7200

66505

SOV/137-59-7-15060

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 7, pp 123 - 124 (USSR)

AUTHORS: Zemzin, V.N., Petrov, G.L., Smirnova, I.D., Soldatova, A.S., Kakstov, A.A., Kopelevich, Kh.I.

TITLE: Welding Cast Austenitic LA3 Steel

PERIODICAL: Tr. Nevsk. mashinostr. z-da, 1958, Nr 4, pp 104 - 118

ABSTRACT: Austenitic Cr-Ni LA3 steel is used in steam equipment production at super-high parameters. Electrodes were designed and technology of welding-up casting defects and welding slide-plates to rolled Cr-Ni-steel pipes was developed. Requirements to heat-resistance of weld joints are the same as to steel for machine part castings: at 580 - 600°C and 100,000 hours operation σ_{dl} was $\geq$ 14 kg/mm²; and σ_{pl} was $\geq$ 6 kg/mm² at an elimination of 1.10^{-5} %/hour and $a_k \geq 4$ kgm/cm². Formation of hot cracks in the seam metal are characteristic of LA3 steel welding. S, Si, Nb, and sometimes P, further hot crack formation by the development of low-melting eutectics. The presence of a second phase, δ-ferrite in the given steel, reduces the probability of hot crack formation in the seam metal and granulates the structure. Taking into account the dilution of the seam

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metal by the base metal, the ferrite content in the build-up metal is considered to be 5 to 7%. Increased ferrite amount arranged in continuous "chains" entails σ-phase formation and embrittles the metal in ageing. The seam metal was alloyed with C, Cr, Ni, Mn, Mo and V through the covering. The ferrite amount was controlled by varying the Cr content. The following requirement to the chemical composition of built-up metal (with KTI-5 electrodes) was established (in %): C 0.18 - 0.15; Si 0.[illegible]; Mn 2.8 - 4.0; Mo 1.8 - 2.7; V 0.35 - 0.50; S $\leq$ 0.03; P $\leq$ 0.04, for Cr and Ni four variants are given within 9.6 - 13.5 Ni and 17.7 - 21.3 Cr respectively. The electrode wire was made of "EI400" or "Kh18N11M" steel. Mechanical properties and endurance of the built-up metal were satisfactory after ageing for 10 hours at 800°C. From 1952 to 1956 the plant consumed 21 tons of KTI-5 electrodes for welding-up casting defects in 50 - 800 kg ingots, cast of "LA3" steel, and up to 12 tons for "Kh22N1[illegible]" steel castings.

V.B.

Card 2/2

SOGOMONYAN, N., kand.arkhitektury; KOPELEVICH, L., inzh.

Competition for best standard designs of farmhouses for the Russian Federation. Zhil.stroi. no.10:24-27 '58.
(MIRA 12:6)

(Architecture, Domestic--Designs and plans--Competitions)

LEVI, S.S., kand. tekhn. nauk; KOPELEVICH, L.Kh., inzh.; RYAZANTSEVA, L.I., red. izd-va; SHEVCHENKO, T.N., tekhn.red.

[Reinforcement operations] Armaturnye raboty. Moskva, Gosstroiizdat, 1963. 242 p.

(MIRA 16:6)

(Concrete reinforcement)

MASENKO, I.D., inzh.; KOPELEVICH, L.Kh., inzh.; FINKINSHTEYN, B.A., inzh. red.

[Stands for manufacturing large prestressed concrete structural elements] Stendy dlia izgotovleniia krupnorazmernykh predvaritel'no napriazhennykh zhelezobetonnykh konstruktsii. Moskva, Gosstroiizdat, 1961. 64 p. (MIRA 16:8)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu. 2. Glavnyy spetsialist laboratorii vnedreniya peredovoy tekhnologii i mekhanizatsii izgotovleniya predvaritel'no napryazhennykh zhelezobetonnykh konstruktsii Nauchno-issledovatel'skogo instituta organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu Akademii stroitel'stva i arkhitektury SSSR (for Kopelevich).

(Prestressed concrete construction)

KOPELEVICH, L.Kh., inzh.; BLEKHMAN, I.Ye., inzh.; MASENKO, I.D., inzh.; OVCHAROV, V.I., kand. tekhn. nauk; DEKHTYAR, D.E., kand. tekhn. nauk; VAKUSOV, V.G., inzh.; FINKINSHTEYN, V.A., inzh., red.

[Technology of manufacturing large prestressed concrete elements for industrial construction] Tekhnologiia izgotovleniia krupnorazmernykh predvaritel'no napriazhennykh zhelezobetonnykh konstruktsii dlia promyshlennogo stroitel'stva. Moskva, Gosstroiizdat, 1963. 99 p. (MIRA 17:7)

1. Moscow. Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu.

L 62835-65 EWT(m)/EWG(s)-2 Pw-4 JAJ

ACCESSION NR: AP5019034

UR/0286/65/000/012/0067/0068
693.554.4

16
15

AUTHOR: Kopelevich, L. Kh.

TITLE: A reinforcing element. Class 37, No. 172016 15

8

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 12, 1965, 67-68

TOPIC TAGS: structural element, prestraining, prestressing, reinforced concrete, construction method 15

ABSTRACT: Thie Author's Certificate introduces: 1. A reinforcing element for prestressing ferroconcrete structures of the beam type. The device is stretched on supports before concrete application. The element contains a bundle of high strength wires, anchor attachments on the ends in the form of shoes, and clamps. The unit is designed for the most compact wire arrangement and for completely coating the wires with concrete. The wires in the bundle are placed in several parallel series. The wires in one series are skewed with respect to those in another. 2. A modification of this device in which the anchoring capacity of the element is increased by making the clamps in the form of closed hoops interwoven with the wires in the

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L 62835-65

ACCESSION NR: AP5019034

bundle. 3. A modification of this device in which the anchoring capacity of the element is increased by making the clamps in the form of steel strips or wire which grip a vertical series of wires.

ASSOCIATION: Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu (Scientific Research Institute for the Organization, Mechanization and Technical Assistance of Construction)

SUBMITTED: 01Apr63 ENCL: 00 SUB CODE: GO, MT

NO REF SOV: 000 OTHER: 000

Card 2/2

L 1650-66(A) EWT(m)

ACCESSION NR: AP5021636 UR/0286/65/000/013/0120/0120

AUTHOR: Kopelevich, L. Kh. 44 13 / 71

TITLE: Device for transmitting the preliminary stress of reinforcement to concrete products. Class 80, No. 172668 B

SOURCE: 15,44 Byulleten' izobreteniy i tovarnykh znakov, no. 13, 1965, 120

TOPIC TAGS: concrete, test equipment

ABSTRACT: This Author Certificate presents a device for transmitting the preliminary stress of reinforcement to concrete products. The device includes a thrust nut, a mechanism for rotating the nut, and a distributing washer (see Fig. 1 on the Enclosure). To increase the uniformity of transmitting the preliminary stress, the device for rotating the nut is made in the form of a directional effect vibrator and is mounted directly on the nut. To decrease the frictional force, the contacting surfaces of the thrust nut and the distributing washer are spherical. The radius of curvature of the distributing washer is greater than that of the thrust nut. Orig. art. has: 1 diagram.

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L 1650-66

ACCESSION NR: AP5021636

2

ASSOCIATION: Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu Gosstroya SSSR (Scientific Research Institute for Organization, Mechanization, and Technical Aid to Construction of Gosstroy, SSSR)

44

SUBMITTED: 16Mar64 ENCL: 01 SUB CODE: MT, IE

NO REF SOV: 000 OTHER: 000

Card 2/3